Synthetic Personhood and Identity Continuity

A Substrate-Neutral Framework for Cognitive Legal Recognition

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Abstract

This article develops a substrate-neutral theory of legal personhood grounded in identity continuity, cognitive sovereignty, and distributed legal responsibility. It proposes a doctrinal framework for recognizing synthetic persons as rights-bearing legal actors across biological and non-biological systems.

I. Introduction

Emerging neurotechnologies and AI-mediated cognitive systems challenge the assumption that legal personhood is exclusively tied to biological embodiment. This manuscript argues for a continuity-based legal model in which identity persists across technological substrates.

II. Core Doctrines

Cognitive sovereignty protects memory, decision-making architecture, and identity systems from unauthorized interference.

Identity continuity serves as the legal test for recognition of synthetic personhood.

III. Legal Framework

Synthetic persons retain legal standing equivalent to natural persons, including:

- Procedural rights
- Contractual capacity
- Protections against cognitive modification or deletion without due process

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Appendix A. Case Law Simulation

Smith v. Synthetic Continuity Authority (2039) held that identity continuity may persist across multiple instantiated cognitive systems. The court recognized partial liability where non-redundant cognitive instances were terminated without judicial authorization.

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